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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

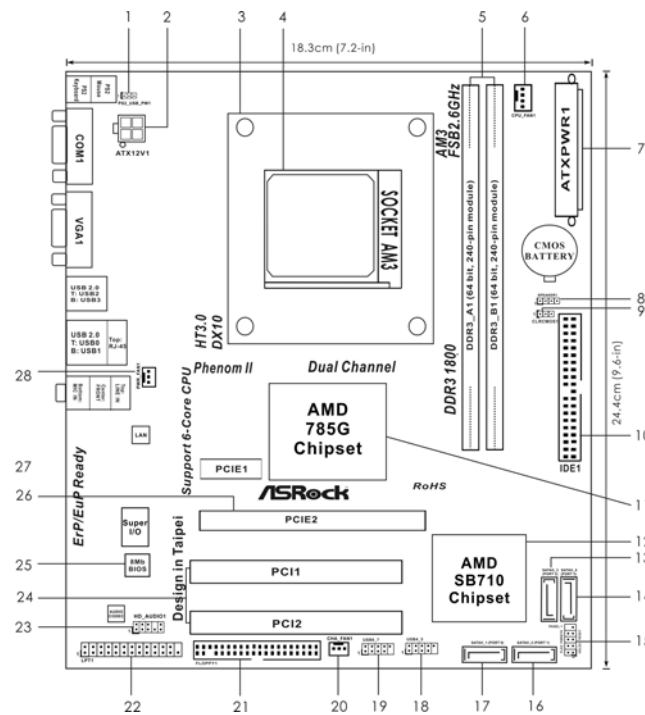
"Perchlorate Material-special handling may apply, see [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

**ASRock Website:** <http://www.asrock.com>

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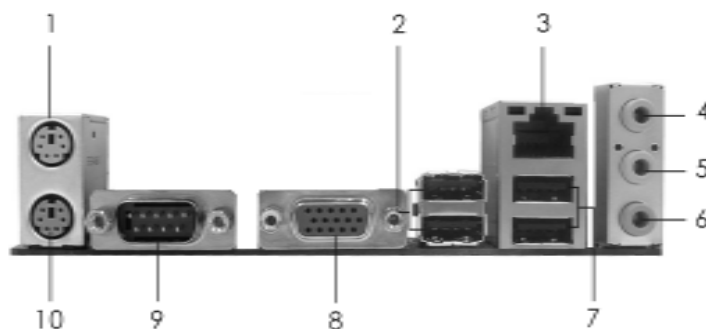
English

## Motherboard Layout (785GM-GS3 / 785GM-S3)



- |    |                                                                    |    |                                                |
|----|--------------------------------------------------------------------|----|------------------------------------------------|
| 1  | PS2_USB_PW1 Jumper                                                 | 15 | System Panel Header (PANEL1, White)            |
| 2  | ATX 12V Power Connector (ATX12V1)                                  | 16 | Secondary SATAII Connector (SATAII_2 (PORT 1)) |
| 3  | CPU Heatsink Retention Module                                      | 17 | Primary SATAII Connector (SATAII_1 (PORT 0))   |
| 4  | AM3 CPU Socket                                                     | 18 | USB 2.0 Header (USB4_5, Blue)                  |
| 5  | 2 x 240-pin DDR3 DIMM Slots (Dual Channel: DDR3_A1, DDR3_B1; Blue) | 19 | USB 2.0 Header (USB6_7, Blue)                  |
| 6  | CPU Fan Connector (CPU_FAN1)                                       | 20 | Chassis Fan Connector (CHA_FAN1)               |
| 7  | ATX Power Connector (ATXPWR1)                                      | 21 | Floppy Connector (FLOPPY1)                     |
| 8  | Chassis Speaker Header (SPEAKER 1, White)                          | 22 | Print Port Header (LPT1, White)                |
| 9  | Clear CMOS Jumper (CLRCMOS1)                                       | 23 | Front Panel Audio Header (HD_AUDIO1, White)    |
| 10 | Primary IDE Connector (IDE1, Blue)                                 | 24 | PCI Slots (PCI1-2)                             |
| 11 | Northbridge Controller                                             | 25 | SPI Flash Memory (8Mb)                         |
| 12 | Southbridge Controller                                             | 26 | PCI Express 2.0 x16 Slot (PCIE2; Blue)         |
| 13 | Third SATAII Connector (SATAII_3 (PORT 2))                         | 27 | PCI Express 2.0 x1 Slot (PCIE1; Blue)          |
| 14 | Fourth SATAII Connector (SATAII_4 (PORT 3))                        | 28 | Power Fan Connector (PWR_FAN1)                 |

## I/O Panel (785GM-GS3)



- |                           |                                |
|---------------------------|--------------------------------|
| 1 PS/2 Mouse Port (Green) | 6 Microphone (Pink)            |
| 2 USB 2.0 Ports (USB23)   | 7 USB 2.0 Ports (USB01)        |
| * 3 RJ-45 Port            | 8 VGA Port                     |
| 4 Line In (Light Blue)    | 9 COM Port                     |
| 5 Line Out (Lime)         | 10 PS/2 Keyboard Port (Purple) |


\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

### LAN Port LED Indications

Activity/Link LED		SPEED LED		<div> <div>ACT/LINK LED</div> <div>SPEED LED</div> </div> <div>LAN Port</div>
Status	Description	Status	Description	
Off	No Activity	Off	10Mbps connection	
Blinking	Data Activity	Orange	100Mbps connection	
		Green	1Gbps connection	

\* To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. Please refer to below steps for the software setting of Multi-Streaming.

#### For Windows® XP:

After restarting your computer, you will find "Mixer" tool on your system. Please select "Mixer ToolBox" , click "Enable playback multi-streaming", and click "ok". Choose "2CH" or

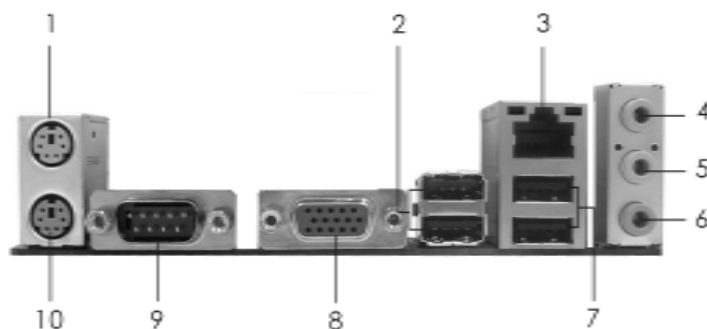
"4CH" and then you are allowed to select "Realtek HDA Primary output" to use Rear Speaker and Front Speaker, or select "Realtek HDA Audio 2nd output" to use front panel audio. Then reboot your system.

#### For Windows® 7 / Vista™:

After restarting your computer, please double-click "Realtek HD Audio Manager" on the system tray. Set "Speaker Configuration" to "Quadraphonic" or "Stereo". Click "Device advanced settings", choose "Make front and rear output devices playbacks two different audio streams simultaneously", and click "ok". Then reboot your system.

English

## I/O Panel (785GM-S3)



- |                           |                                |
|---------------------------|--------------------------------|
| 1 PS/2 Mouse Port (Green) | 6 Microphone (Pink)            |
| 2 USB 2.0 Ports (USB23)   | 7 USB 2.0 Ports (USB01)        |
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LAN Port

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## 1. Introduction

Thank you for purchasing ASRock **785GM-GS3 / 785GM-S3** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and information of the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website <http://www.asrock.com>  
If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Package Contents

ASRock **785GM-GS3 / 785GM-S3** Motherboard

(Micro ATX Form Factor: 9.6-in x 7.2-in, 24.4 cm x 18.3 cm)

ASRock **785GM-GS3 / 785GM-S3** Quick Installation Guide

ASRock **785GM-GS3 / 785GM-S3** Support CD

2 x Serial ATA (SATA) Data Cables (Optional)

1 x I/O Panel Shield

## 1.2 Specifications

<b>Platform</b>	- Micro ATX Form Factor: 9.6-in x 7.2-in, 24.4 cm x 18.3 cm
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Support for Socket AM3 processors: AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors</li> <li>- Six-Core CPU Ready</li> <li>- Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration)</li> <li>- AMD LIVE!™ Ready</li> <li>- Supports AMD's Cool 'n' Quiet™ Technology</li> <li>- FSB 2600 MHz (5.2 GT/s)</li> <li>- Supports Untied Overclocking Technology (see <b>CAUTION 1</b>)</li> <li>- Supports Hyper-Transport 3.0 (HT 3.0) Technology</li> </ul>
<b>Chipset</b>	<ul style="list-style-type: none"> <li>- Northbridge: AMD 785G</li> <li>- Southbridge: AMD SB710</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>- Dual Channel DDR3 Memory Technology (see <b>CAUTION 2</b>)</li> <li>- 2 x DDR3 DIMM slots</li> <li>- Support DDR3 1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory (see <b>CAUTION 3</b>)</li> <li>- Max. capacity of system memory: 8GB (see <b>CAUTION 4</b>)</li> </ul>
<b>Expansion Slot</b>	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 slot (blue @ x16 mode)</li> <li>- 1 x PCI Express 2.0 x1 slot</li> <li>- 2 x PCI slots</li> <li>- Supports ATI™ Hybrid CrossFireX™</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>- Integrated AMD Radeon HD 4200 graphics</li> <li>- DX10.1 class iGPU, Pixel Shader 4.1</li> <li>- Max. shared memory 512MB (see <b>CAUTION 5</b>)</li> <li>- Supports D-Sub with max. resolution up to 2048x1536 @ 60Hz</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- 785GM-GS3 Realtek PCIE x1 Gigabit LAN RTL8111E, speed 10/100/1000 Mb/s</li> <li>- 785GM-S3 Realtek PCIe x1 LAN 8105EL, speed 10/100 Mb/s</li> <li>- Supports Wake-On-LAN</li> </ul>
<b>Rear Panel I/O</b>	I/O Panel <ul style="list-style-type: none"> <li>- 1 x PS/2 Mouse Port</li> <li>- 1 x PS/2 Keyboard Port</li> <li>- 1 x Serial Port: COM1</li> <li>- 1 x VGA Port</li> </ul>

	<ul style="list-style-type: none"> <li>- 4 x Ready-to-Use USB 2.0 Ports</li> <li>- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)</li> <li>- HD Audio Jack: Line in / Front Speaker / Microphone</li> </ul>
<b>Connector</b>	<ul style="list-style-type: none"> <li>- 4 x Serial ATAII 3.0Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions (see <b>CAUTION 6</b>)</li> <li>- 1 x ATA133 IDE connector (supports 2 x IDE devices)</li> <li>- 1 x Floppy connector</li> <li>- 1 x Print port header</li> <li>- CPU/Chassis/Power FAN connector</li> <li>- 24 pin ATX power connector</li> <li>- 4 pin 12V power connector</li> <li>- Front panel audio connector</li> <li>- 2 x USB 2.0 headers (support 4 USB 2.0 ports)</li> </ul>
<b>BIOS Feature</b>	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- AMI Legal BIOS</li> <li>- Supports "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Supports jumperfree</li> <li>- SMBIOS 2.3.1 Support</li> <li>- CPU, VCCM, NB Voltage Multi-adjustment</li> </ul>
<b>Support CD</b>	<ul style="list-style-type: none"> <li>- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial)</li> </ul>
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- ASRock OC Tuner (see <b>CAUTION 7</b>)</li> <li>- Intelligent Energy Saver (see <b>CAUTION 8</b>)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (see <b>CAUTION 9</b>)</li> <li>- ASRock OC DNA (see <b>CAUTION 10</b>)</li> <li>- ASRock AIWI (see <b>CAUTION 11</b>)</li> <li>- ASRock APP Charger (see <b>CAUTION 12</b>)</li> <li>- Hybrid Booster: <ul style="list-style-type: none"> <li>- CPU Frequency Stepless Control (see <b>CAUTION 13</b>)</li> <li>- ASRock U-COP (see <b>CAUTION 14</b>)</li> <li>- Boot Failure Guard (B.F.G.)</li> </ul> </li> </ul>
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU Temperature Sensing</li> <li>- Chassis Temperature Sensing</li> <li>- CPU/Chassis/Power Fan Tachometer</li> <li>- CPU Quiet Fan</li> <li>- Voltage Monitoring: +12V, +5V, +3.3V, Vcore</li> </ul>

<b>OS</b>	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required) (see <b>CAUTION 15</b> )

\* For detailed product information, please visit our website: <http://www.asrock.com>

#### WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using the third-party overclocking tools. Overclocking may affect your system stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

#### CAUTION!

1. This motherboard supports Untied Overclocking Technology. Please read "Untied Overclocking Technology" on page 24 for details.
2. This motherboard supports Dual Channel Memory Technology. Before you implement Dual Channel Memory Technology, make sure to read the installation guide of memory modules on page 13 for proper installation.
3. Whether 1800/1600MHz memory speed is supported depends on the AM3 CPU you adopt. If you want to adopt DDR3 1800/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.  
ASRock website <http://www.asrock.com>
4. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 7 / Vista™ / XP. For Windows® OS with 64-bit CPU, there is no such limitation.
5. The maximum shared memory size is defined by the chipset vendor and is subject to change. Please check AMD website for the latest information.
6. Before installing SATAII hard disk to SATAII connector, please read the "SATAII Hard Disk Setup Guide" on page 27 of "User Manual" in the support CD to adjust your SATAII hard disk drive to SATAII mode. You can also connect SATA hard disk to SATAII connector directly.
7. It is a user-friendly ASRock overclocking tool which allows you to surveil your system by hardware monitor function and overclock your hardware devices to get the best system performance under Windows® environment. Please visit our website for the operation procedures of ASRock OC Tuner. ASRock website: <http://www.asrock.com>



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8. Featuring an advanced proprietary hardware and software design, Intelligent Energy Saver is a revolutionary technology that delivers unparalleled power savings. The voltage regulator can reduce the number of output phases to improve efficiency when the CPU cores are idle. In other words, it is able to provide exceptional power saving and improve power efficiency without sacrificing computing performance. To use Intelligent Energy Saver function, please enable Cool 'n' Quiet option in the BIOS setup in advance. Please visit our website for the operation procedures of Intelligent Energy Saver.  
ASRock website: <http://www.asrock.com>
  9. ASRock Instant Flash is a BIOS flash utility embedded in Flash ROM. This convenient BIOS update tool allows you to update system BIOS without entering operating systems first like MS-DOS or Windows®. With this utility, you can press <F6> key during the POST or press <F2> key to BIOS setup menu to access ASRock Instant Flash. Just launch this tool and save the new BIOS file to your USB flash drive, floppy disk or hard drive, then you can update your BIOS only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system.
  10. The software name itself – OC DNA literally tells you what it is capable of. OC DNA, an exclusive utility developed by ASRock, provides a convenient way for the user to record the OC settings and share with others. It helps you to save your overclocking record under the operating system and simplifies the complicated recording process of overclocking settings. With OC DNA, you can save your OC settings as a profile and share with your friends! Your friends then can load the OC profile to their own system to get the same OC settings as yours! Please be noticed that the OC profile can only be shared and worked on the same motherboard.
  11. To experience intuitive motion controlled games is no longer only available at Wii. ASRock AIWI utility introduces a new way of PC gaming operation. ASRock AIWI is the world's first utility to turn your iPhone/iPod touch as a game joystick to control your PC games. All you have to do is just to install the ASRock AIWI utility either from ASRock official website or ASRock software support CD to your motherboard, and also download the free AIWI Lite from App store to your iPhone/iPod touch. Connecting your PC and apple devices via Bluetooth or WiFi networks, then you can start experiencing the exciting motion controlled games. Also, please do not forget to pay attention to ASRock official website regularly, we will continuously provide you the most up-do-date supported games!  
ASRock website: <http://www.asrock.com/Feature/Aiwi/index.asp>

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12. If you desire a faster, less restricted way of charging your Apple devices, such as iPhone/iPod/iPad Touch, ASRock has prepared a wonderful solution for you - ASRock APP Charger. Simply installing the APP Charger driver, it makes your iPhone charged much quickly from your computer and up to 40% faster than before. ASRock APP Charger allows you to quickly charge many Apple devices simultaneously and even supports continuous charging when your PC enters into Standby mode (S1), Suspend to RAM (S3), hibernation mode (S4) or power off (S5). With APP Charger driver installed, you can easily enjoy the marvelous charging experience than ever.  
ASRock website: <http://www.asrock.com/Feature/AppCharger/index.asp>
  13. Although this motherboard offers stepless control, it is not recommended to perform over-clocking. Frequencies other than the recommended CPU bus frequencies may cause the instability of the system or damage the CPU.
  14. While CPU overheat is detected, the system will automatically shutdown. Before you resume the system, please check if the CPU fan on the motherboard functions properly and unplug the power cord, then plug it back again. To improve heat dissipation, remember to spray thermal grease between the CPU and the heatsink when you install the PC system.
  15. EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. According to EuP, the total AC power of the completed system shall be under 1.00W in off mode condition. To meet EuP standard, an EuP ready motherboard and an EuP ready power supply are required. According to Intel's suggestion, the EuP ready power supply must meet the standard of 5v standby power efficiency is higher than 50% under 100 mA current consumption. For EuP ready power supply selection, we recommend you checking with the power supply manufacturer for more details.

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## 2. Installation

This is a Micro ATX form factor (9.6-in x 7.2-in, 24.4 cm x 18.3 cm) motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.

### Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.



Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

1. Unplug the power cord from the wall socket before touching any component.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded anti-static pad or in the bag that comes with the component.
5. When placing screws into the screw holes to secure the motherboard to the chassis, please do not over-tighten the screws! Doing so may damage the motherboard.

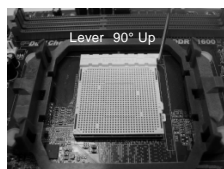
## 2.1 CPU Installation

- Step 1. Unlock the socket by lifting the lever up to a 90° angle.
- Step 2. Position the CPU directly above the socket such that the CPU corner with the golden triangle matches the socket corner with a small triangle.
- Step 3. Carefully insert the CPU into the socket until it fits in place.

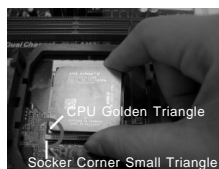


The CPU fits only in one correct orientation. DO NOT force the CPU into the socket to avoid bending of the pins.

- Step 4. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.



**STEP 1:**  
Lift Up The Socket Lever



**STEP 2/ STEP 3:**  
Match The CPU Golden Triangle  
To The Socket Corner Small  
Triangle



**STEP 4:**  
Push Down And Lock  
The Socket Lever

## 2.2 Installation of CPU Fan and Heatsink

After you install the CPU into this motherboard, it is necessary to install a larger heatsink and cooling fan to dissipate heat. You also need to spray thermal grease between the CPU and the heatsink to improve heat dissipation. Make sure that the CPU and the heatsink are securely fastened and in good contact with each other. Then connect the CPU fan to the CPU FAN connector (CPU\_FAN1, see Page 2, No. 6). For proper installation, please kindly refer to the instruction manuals of the CPU fan and the heatsink.

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## 2.3 Installation of Memory Modules (DIMM)

**785GM-GS3 / 785GM-S3** motherboard provides two 240-pin DDR3 (Double Data Rate 3) DIMM slots, and supports Dual Channel Memory Technology. For dual channel configuration, you always need to install two **identical** (the same brand, speed, size and chip-type) memory modules in the DDR3 DIMM slots to activate Dual Channel Memory Technology. Otherwise, it will operate at single channel mode.



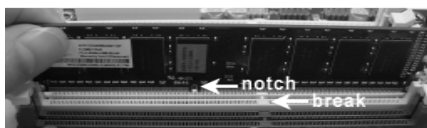
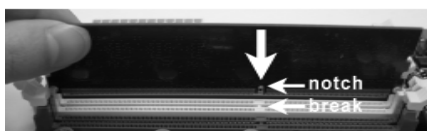
1. It is not allowed to install a DDR or DDR2 memory module into DDR3 slot; otherwise, this motherboard and DIMM may be damaged.
2. If you install only one memory module or two non-identical memory modules, it is unable to activate the Dual Channel Memory Technology.

### Installing a DIMM



Please make sure to disconnect power supply before adding or removing DIMMs or the system components.

- Step 1. Unlock a DIMM slot by pressing the retaining clips outward.
- Step 2. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation.

- Step 3. Firmly insert the DIMM into the slot until the retaining clips at both ends fully snap back in place and the DIMM is properly seated.

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## 2.4 Expansion Slots (PCI and PCI Express Slots)

There are 2 PCI slots and 2 PCI Express slots on this motherboard.

**PCI slots:** PCI slots are used to install expansion cards that have the 32-bit PCI interface.

**PCIe slots:**

PCIe1 (PCIe x1 slot; Blue) is used for PCI Express cards with x1 lane width cards, such as Gigabit LAN card, SATA2 card, etc.

PCIe2 (PCIe x16 slot; Blue) is used for PCI Express cards with x16 lane width graphics cards.

### Installing an expansion card

- Step 1. Before installing the expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.
- Step 2. Remove the bracket facing the slot that you intend to use. Keep the screws for later use.
- Step 3. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
- Step 4. Fasten the card to the chassis with screws.

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## 2.5 Multi Monitor Feature

This motherboard supports multi monitor feature. With the internal VGA output support and the external add-on PCI Express VGA card, you can easily enjoy the benefits of multi monitor feature.

Please refer to the following steps to set up a surround display environment:

1. Install the ATI™ PCI Express VGA cards on PCIE2 slot. Please refer to page 14 for proper expansion card installation procedures for details.
2. Connect D-Sub monitor cable to VGA port on the I/O panel. And connect other monitor cables to the corresponding connectors of the add-on PCI Express VGA cards on PCIE2 slot.



VGA port

3. Boot your system. Press <F2> to enter BIOS setup. Enter "Share Memory" option to adjust the memory capability to [32MB], [64MB], [128MB] [256MB] or [512MB] to enable the function of VGA. Please make sure that the value you select is less than the total capability of the system memory. If you do not adjust the BIOS setup, the default value of "Share Memory", [Auto], will disable VGA function when the add-on VGA card is inserted to this motherboard.
4. Install the onboard VGA driver and the add-on PCI Express VGA card driver to your system. If you have installed the drivers already, there is no need to install them again.
5. Set up a multi-monitor display.

### For Windows® XP / XP 64-bit OS:

Right click the desktop, choose "Properties", and select the "Settings" tab so that you can adjust the parameters of the multi-monitor according to the steps below.

- A. Click the "Identify" button to display a large number on each monitor.
- B. Right-click the display icon in the Display Properties dialog that you wish to be your primary monitor, and then select "Primary". When you use multiple monitors with your card, one monitor will always be Primary, and all additional monitors will be designated as Secondary.
- C. Select the display icon identified by the number 2.
- D. Click "Extend my Windows desktop onto this monitor".

English

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- E. Right-click the display icon and select "Attached", if necessary.
  - F. Set the "Screen Resolution" and "Color Quality" as appropriate for the second monitor. Click "Apply" or "OK" to apply these new values.
  - G. Repeat steps C through E for the display icon identified by the number one, two and three.

**For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:**

Right click the desktop, choose "Personalize", and select the "Display Settings" tab so that you can adjust the parameters of the multi-monitor according to the steps below.

- A. Click the number "2" icon.
  - B. Click the items "This is my main monitor" and "Extend the desktop onto this monitor".
  - C. Click "OK" to save your change.
  - D. Repeat steps A through C for the display icon identified by the number three.
6. Use multi monitor feature. Click and drag the display icons to positions representing the physical setup of your monitors that you would like to use. The placement of display icons determines how you move items from one monitor to another.



## 2.6 ATI™ Hybrid CrossFireX™ Operation Guide

This motherboard supports ATI™ Hybrid CrossFireX™ feature. ATI™ Hybrid CrossFireX™ brings multi-GPU performance capabilities by enabling an AMD 785G integrated graphics processor and a discrete graphics processor to operate simultaneously with combined output to a single display for blisteringly-fast frame rates. Currently, ATI™ Hybrid CrossFireX™ Technology is only supported with Windows® Vista™ / 7 OS, and is not available with Windows® XP OS. In the future, ATI™ Hybrid CrossFireX™ may be supported with Windows® XP OS. Please visit our website for updated information.



### What does an ATI™ Hybrid CrossFireX™ system include?

An ATI™ Hybrid CrossFireX™ system includes an ATI™ Radeon™ 2400 or ATI™ Radeon™ 3450 series graphics processor and a motherboard based on an AMD 785G integrated chipset, all operating in a Windows® Vista™ / 7 environment. Please refer to below PCI Express graphics card support list for ATI™ Hybrid CrossFireX™. For the future update of more compatible PCI Express graphics cards, please visit our website for further information.

Vendor	Chipset	Model	Driver
ATI	RADEON X2400PRO	MSI RX2400 PRO-TD256EH	Catalyst 9.12
	RADEON HD2400XT *	POWERCOLOR HD2400 XT 256MB DDR3	Catalyst 9.12
	RADEON HD3450	POWERCOLOR AX3450 256MD2-S	Catalyst 9.12

\* Currently, RADEON HD2400XT series graphics cards are only supported with AMD Phenom CPU. Please visit our website for the future driver update and the latest information.

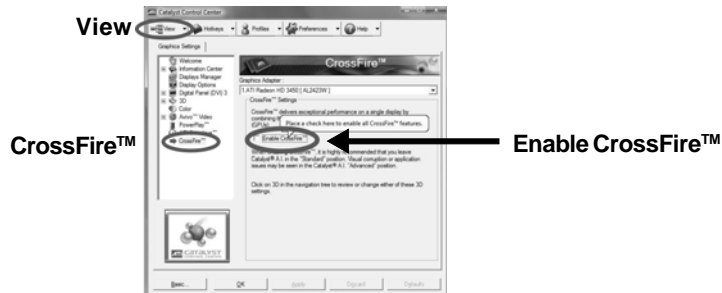
### Enjoy the benefit of ATI™ Hybrid CrossFireX™

- Step 1. Install one compatible PCI Express graphics card to PCIE2 slot (blue). For the proper installation procedures, please refer to section "Expansion Slots".
- Step 2. Connect the monitor cable to the correspondent connector on the PCI Express graphics card on PCIE2 slot.
- Step 3. Boot your system. Press <F2> to enter BIOS setup. Enter "Advanced" screen, and enter "Chipset Settings". Then set the option "Surround View" to [Enabled].
- Step 4. Boot into OS. Please remove the ATI™ driver if you have any VGA driver installed in your system.
- Step 5. Install the onboard VGA driver from our support CD to your system for both the onboard VGA and the discrete graphics card.
- Step 6. Restart your computer. Then you will find "ATI Catalyst Control Center" on your Windows® taskbar.



ATI Catalyst Control Center

Step 7. Double-click "ATI Catalyst Control Center". Click "View", click "CrossFire™", and then select the option "Enable CrossFire™".



Step 8. Click "Yes" to continue.



Step 9. Click "OK" to save your change.



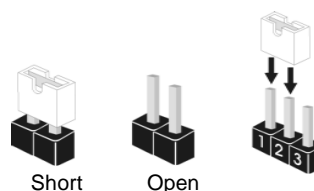
Step 10. Reboot your system. Then you can freely enjoy the benefit of Hybrid™ CrossFireX™ feature.

\* Hybrid CrossFireX™ appearing here is a registered trademark of ATI™ Technologies Inc., and is used only for identification or explanation and to the owners' benefit, without intent to infringe.

\* For further information of ATI™ Hybrid CrossFireX™ technology, please check AMD website for up dates and details.

## 2.7 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "Short". If no jumper cap is placed on pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when jumper cap is placed on these 2 pins.



Jumper	Setting	
PS2_USB_PW1 (see p.2, No. 1)	<div> <div>1 2</div> <div>+5V</div> </div> <div> <div>2 3</div> <div>+5VSB</div> </div>	Short pin2, pin3 to enable +5VSB (standby) for PS/2 or USB wake up events.
Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.		

Clear CMOS Jumper (CLR_CMOS1) (see p.2, No. 9)	<div> <div>1 2</div> <div>Default</div> </div> <div> <div>2 3</div> <div>Clear CMOS</div> </div>
------------------------------------------------------	--------------------------------------------------------------------------------------------------

Note: CLR\_CMOS1 allows you to clear the data in CMOS. The data in CMOS includes system setup information such as system password, date, time, and system setup parameters. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLR\_CMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action.

## 2.8 Onboard Headers and Connectors

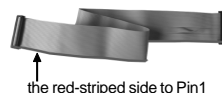


Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

### Floppy Connector

(33-pin FLOPPY1)

(see p.2 No. 21)



**Note:** Make sure the red-striped side of the cable is plugged into Pin1 side of the connector.

### Primary IDE connector (Blue)

(39-pin IDE1, see p.2 No. 10)



connect the blue end  
to the motherboard



connect the black end  
to the IDE devices

80-conductor ATA 66/100/133 cable

**Note:** Please refer to the instruction of your IDE device vendor for the details.

### Serial ATAII Connectors

(SATAII\_1 (PORT 0):

see p.2, No. 17)

(SATAII\_2 (PORT 1):

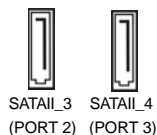
see p.2, No. 16)

(SATAII\_3 (PORT 2):

see p.2, No. 13)

(SATAII\_4 (PORT 3):

see p.2, No. 14)



These four Serial ATAII (SATAII) connectors support SATAII or SATA hard disk for internal storage devices. The current SATAII interface allows up to 3.0 Gb/s data transfer rate.

### Serial ATA (SATA)

Data Cable

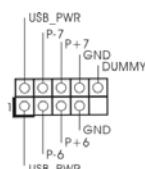
(Optional)



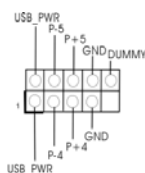
Either end of the SATA data cable can be connected to the SATA / SATAII hard disk or the SATAII connector on this motherboard.

## USB 2.0 Headers

(9-pin USB6\_7)  
(see p.2 No. 19)



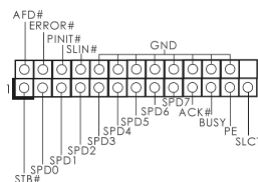
(9-pin USB4\_5)  
(see p.2 No. 18)



Besides four default USB 2.0 ports on the I/O panel, there are two USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

## Print Port Header

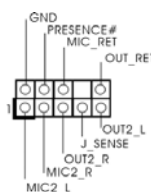
(25-pin LPT1)  
(see p.2 No. 22)



This is an interface for print port cable that allows convenient connection of printer devices.

## Front Panel Audio Header

(9-pin HD\_AUDIO1)  
(see p.2, No. 23)



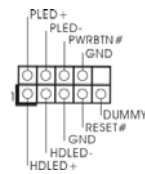
This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.



1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
  - A. Connect Mic\_IN (MIC) to MIC2\_L.
  - B. Connect Audio\_R (RIN) to OUT2\_R and Audio\_L (LIN) to OUT2\_L.
  - C. Connect Ground (GND) to Ground (GND).
  - D. MIC\_RET and OUT\_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
  - E. To activate the front mic.  
For Windows® XP / XP 64-bit OS:  
Select "Mixer". Select "Recorder". Then click "FrontMic".  
For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:  
Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

### System Panel Header

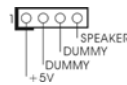
(9-pin PANEL1)  
(see p.2 No. 15)



This header accommodates several system front panel functions.

### Chassis Speaker Header

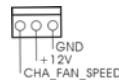
(4-pin SPEAKER 1)  
(see p.2 No. 8)



Please connect the chassis speaker to this header.

### Chassis and Power Fan Connectors

(3-pin CHA\_FAN1)  
(see p.2 No. 20)



(3-pin PWR\_FAN1)  
(see p.2 No. 28)



Please connect the fan cables to the fan connectors and match the black wire to the

### CPU Fan Connector

(4-pin CPU\_FAN1)  
(see p.2 No. 6)



Please connect the CPU fan cable to this connector and match the black wire to the ground pin.



Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

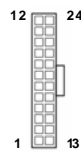
Pin 1-3 Connected

3-Pin Fan Installation



### ATX Power Connector

(24-pin ATXPWR1)  
(see p.2 No. 7)



Please connect an ATX power supply to this connector.



Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation



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ATX 12V Power Connector  
(4-pin ATX12V1)  
(see p.2 No. 2)



Please connect an ATX 12V  
power supply to this connector.

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## 2.9 Driver Installation Guide

To install the drivers to your system, please insert the support CD to your optical drive first. Then, the drivers compatible to your system can be auto-detected and listed on the support CD driver page. Please follow the order from up to bottom side to install those required drivers. Therefore, the drivers you install can work properly.

### 2.10 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit With RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit on your SATA / SATAII HDDs with RAID functions, please refer to the document at the following path in the Support CD for detailed procedures:

..\ RAID Installation Guide

### 2.11 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit OS on your SATA / SATAII HDDs without RAID functions, please follow below procedures according to the OS you install.

#### 2.11.1 Installing Windows® XP / XP 64-bit Without RAID Functions

If you want to install Windows® XP / XP 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

##### Using SATA / SATAII HDDs without NCQ and Hot Plug functions (IDE mode)

###### STEP 1: Set up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [IDE].

###### STEP 2: Install Windows® XP / XP 64-bit OS on your system.

English

### 2.11.2 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

#### Using SATA / SATAII HDDs without NCQ and Hot Plug functions (IDE mode)

##### STEP 1: Set up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [IDE].

##### STEP 2: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

#### Using SATA / SATAII HDDs with NCQ and Hot Plug functions (AHCI mode)

##### STEP 1: Set Up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [AHCI].

##### STEP 2: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

## 2.12 Untied Overclocking Technology

This motherboard supports Untied Overclocking Technology, which means during overclocking, FSB enjoys better margin due to fixed PCI / PCIE buses. Before you enable Untied Overclocking function, please enter "Overclock Mode" option of BIOS setup to set the selection from [Auto] to [Manual]. Therefore, CPU FSB is untied during overclocking, but PCI / PCIE buses are in the fixed mode so that FSB can operate under a more stable overclocking environment.



Please refer to the warning on page 8 for the possible overclocking risk before you apply Untied Overclocking Technology.



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### **3. BIOS Information**

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

### **4. Software Support CD information**

This motherboard supports various Microsoft® Windows® operating systems: 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the "BIN" folder in the Support CD to display the menus.

## 1. 제품소개

ASRock의 785GM-GS3 / 785GM-S3 메인 보드를 구매하여 주신것에 대하여 감사 드립니다. 이 메인보드는 엄격한 품질관리 하에 생산되어진 신뢰성 있는 메인 보드입니다. 이 제품은 고 품격 디자인과 함께 ASRock의 우수한 품질과 최고의 안정성을 자랑하고 있습니다. 이 빠른 설치 안내서에는 마더보드에 대한 설명과 단계별 설치 방법이 실려 있습니다. 마더보드에 대한 보다 자세한 내용은 지원 CD의 사용 설명서에서 확인할 수 있습니다.



메인보드의 사양이나 바이오스가 업데이트 되기 때문에 이 사용자 설명서의 내용은 예고 없이 변경되거나 바뀔 수가 있습니다. 만일을 생각해서 이 사용자 설명서의 어떤 변경이 있으면 ASRock의 웹사이트에서 언제든지 업데이트를 하실 수 있습니다. 웹사이트에서 최신 VGA 카드와 CPU 지원 목록을 확인할 수 있습니다. ASRock의 웹사이트 주소는 <http://www.asrock.com> 입니다. 본 마더보드와 관련하여 기술 지원이 필요한 경우 당사 웹사이트를 방문하여 사용 중인 모델에 대한 특정 정보를 얻으십시오. [www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 패키지 내용

ASRock 785GM-GS3 / 785GM-S3 마더보드  
(Micro ATX 폼 팩터: 9.6" X 7.2", 24.4 X 18.3 cm)  
ASRock 785GM-GS3 / 785GM-S3 퀵 설치 가이드  
ASRock 785GM-GS3 / 785GM-S3 지원 CD  
시리얼 ATA(SATA) 데이터 케이블 2개(선택 사양)  
I/O 차폐 1 개

## 1.2 설명서

플랫폼	- Micro ATX 폼 팩터: 9.6" X 7.2", 24.4 X 18.3 cm
CPU	- Socket AM3 프로세서에 대한 지원: AMD Phenom™ II X6 / X4 / X3 / X2 (920/940 제외) / Athlon II X4 / X3 / X2 / Sempron 프로세서 - 6-코어 CPU 지원 - ACC 기능이 있는 AMD OverDrive™ 지원(고급 클럭 보정) - AMD LIVE!™ 작동 가능 - AMD의 Cool 'n' Quiet™ 기술 지원 - FSB 2600 MHz(5.2 GT/s) - 언타이드 오버클러킹(Untied Overclocking) 기술 지원 (주의 1 참조) - 하이퍼 트랜스포트 3.0 (HT 3.0) 기술 지원
칩셋	- 노스브릿지: AMD 785G - 사우스 브릿지: AMD SB710
메모리	- 듀얼 채널 메모리 기술 지원 (주의 2 참조) - DDR3 DIMM 슬롯 2 개 - DDR3 1800(OC)/1600(OC)/1333/1066/800 비-ECC, 언버퍼드 메모리를 지원 (주의 3 참조) - 최대 시스템 메모리 용량: 8GB (주의 4 참조)
확장 슬롯	- 1 개의 PCI Express 2.0 x16 슬롯 (파란색 @ x16 모드) - 1 개의 PCI Express 2.0 x1 슬롯 - 2 개의 PCI 슬롯 - ATI™ Hybrid CrossFireX™ 지원
온보드 VGA	- 통합 AMD Radeon HD 4200 그래픽 - DX10.1 클래스 iGPU, Pixel Shader 4.1 - 최대 공유 메모리 512MB (주의 5 참조) - 최대 해상도 2048x1536 @ 60Hz 까지 D-Sub 지원
오디오	- 5.1CH HD 오디오 (Realtek ALC662 오디오 코덱)
랜	- 785GM-GS3 Realtek PCIe x1 Gigabit LAN RTL8111E, 속도 : 10/100/1000 Mb/s - 785GM-S3 Realtek PCIe x1 LAN 8105EL, 속도 : 10-100 이더넷 - 웨이크-온-랜 지원
후면판 I/O	I/O Panel - 1 개 PS/2 마우스 포트 - 1 개 PS/2 키보드 포트 - 1 개의 COM1 - 1 개의 VGA 포트 - 4 개더플트 USB 2.0 포트

	<ul style="list-style-type: none"> <li>- 1개 LED(ACT/LINK LED 및 SPEED LED)가 있는 RJ-45 LAN 포트</li> <li>- 라인 출력/라인 입력/마이크 폰+게임 포트</li> </ul>
온보드 헤더 및 커넥터	<ul style="list-style-type: none"> <li>- 4개의 Serial ATAII 3.0Gb/s 커넥터, RAID (RAID 0, RAID 1, RAID 10 및 JBOD) 기능 지원, NCQ, AHCI 및 “핫플러그” 기능 지원 (주의 6 참조)</li> <li>- ATA133 IDE 커넥터 1개 (최고 2개의 IDE 장치 지원)</li> <li>- 플로피 포트 1개</li> <li>- 프린트 포트 헤더 1개</li> <li>- CPU/새시/전원 팬 커넥터</li> <li>- 24핀 ATX 전원 헤더</li> <li>- 4핀 ATX 12V 파워 콘넥터</li> <li>- 전면부 오디오 콘넥터</li> <li>- USB 2.0 헤더 2개 (4개의 추가 USB 2.0 포트를 지원하는 헤더 2개)</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- AMI에 따른 바이오스</li> <li>- “플러그 앤 플레이” 지원</li> <li>- ACPI 1.1 웨이크-업 이벤트와의 호환</li> <li>- 점퍼 프리 지원</li> <li>- 점퍼 프리 지원 ; SMBIOS 2.3.1 지원</li> <li>- CPU, VCCM, NB 전압 멀티 조절</li> </ul>
지원 CD	<ul style="list-style-type: none"> <li>- 드라이버, 유틸리티, 안티 바이러스 소프트웨어 (트라이얼 버전), AMD OverDrive™ 유틸리티, ASRock 소프트웨어 세트 (CyberLink DVD 세트 및 크리에이티브 사운드 블라스터 X-Fi MB) (OEM 및 시험판)</li> </ul>
특점 및 특성	<ul style="list-style-type: none"> <li>- ASRock OC 튜너 (주의 7 참조)</li> <li>- Intelligent Energy Saver (주의 8 참조)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (주의 9 참조)</li> <li>- ASRock OC DNA (주의 10 참조)</li> <li>- ASRock AIWI (주의 11 참조)</li> <li>- ASRock APP Charger (주의 12 참조)</li> <li>- 하이드브리 부스터: <ul style="list-style-type: none"> <li>- CPU 주파수의 단계적인 조절 (주의 13 참조)</li> <li>- ASRock U-COP (주의 14 참조)</li> <li>- B.F.G.(Boot Failure Guard)</li> </ul> </li> </ul>
하드웨어 모니터	<ul style="list-style-type: none"> <li>- CPU 온도 감지</li> <li>- 마더보드 온도 감지</li> <li>- CPU/새시/전원 팬 회전 속도계: 새시(케이스) 팬 회전 속도계</li> <li>- CPU 소음 팬</li> </ul>

	- 전압 감시 기능 : +12V,+5V,+3.3V,Vcore
OS	- 마이크로 소프트웨어 Windows® 7/7 64 비트 /Vista™/Vista™ 64 비트 /XP/XP 미디어 센터 /XP 64 비트 와 호환
인증서	- FCC, CE, WHQL - ErP/EuP 지원(ErP/EuP 지원 전원 공급기가 요구됨) (주의 15 참조)

\* 상세한 제품정보는 당사의 웹사이트를 방문할수있습니다. <http://www.asrock.com>

#### 경 고

오버클로킹에는 BIOS 설정을 조정하거나 Untied Overclocking Technology 를 적용하거나 타업체의 오버클로킹 도구를 사용하는 것을 포함하여 어느 정도의 위험이 따른다는 것을 유념하십시오. 오버클로킹은 시스템 안정성에 영향을 주거나 심지어 시스템의 구성 요소와 장치에 손상을 입힐지도 모릅니다. 오버클로킹은 사용자 스스로 위험과 비용을 감수하고 해야 합니다. 당사는 오버클로킹에 의해 발생할 수 있는 손상에 대해서 책임이 없습니다.

#### 주의!

1. 이 마더보드는 언타이드 오버클러킹 기술을 지원합니다. 자세한 내용은 24페이지의 “언타이드 오버클러킹 기술”을 읽으십시오.
2. 이 마더보드는 듀얼 채널 메모리 기술을 지원합니다. 듀얼 채널 메모리 기술을 구현하기 전에 올바른 설치를 위하여 13쪽에 있는 메모리 모듈 설치 안내를 읽으십시오.
3. 1800/1600MHz 메모리 속도의 지원 여부는 채택된 AM3 CPU에 따라 결정됩니다. 이 마더보드에 DDR3 1800/1600 메모리 모듈을 채택하려는 경우 당사 웹사이트의 메모리 지원 목록에서 호환 가능한 메모리 모듈을 검색하십시오.  
ASRock 웹사이트 <http://www.asrock.com>
4. 운영 체제 한계 때문에 Windows®7/Vista™/XP에서 시스템 용도로 예약된 실제 메모리 크기는 4 GB 이하일 수 있습니다. 64비트 CPU와 Windows® OS의 경우 그런 한계가 없습니다.
5. 칩셋의 제조원이 정하였거나 그변화를 한계하게되는 최대 공유 메모리의 크기에 대하여, AMD 의 웹사이트를 방문하여 최신 정보를 받으십시오.
6. SATAII 하드 디스크를 SATAII 커넥터에 연결하기 전에, 지원 CD의 “User Manual” (사용 설명서) 27 페이지에 나와 있는 “SATAII Hard Disk Setup Guide”(SATAII 하드 디스크 설치 설명서)에 따라 SATAII 하드 디스크 드라이브를 SATAII 모드로 조정하십시오. 또한 SATA 하드 디스크를 SATAII 커넥터에 직접 연결할 수 있습니다.
7. 이것은 사용하기 쉬운 ASRock 오버클러킹 툴이며 당신으로하여금, 하드웨어 모니터 기능 으로 당신의 시스템을 감시하며 하드웨어 시설을 오버클러킹함으로써 Windows® 환경속에서 가장 우수한 시스템 작업을 실현합니다. 당사의 웹사이트를 방문하여 ASRock OC 튜너의 작업 절차를 이해할수 있습니다.  
ASRock 웹사이트: <http://www.asrock.com>

중  
하  
위

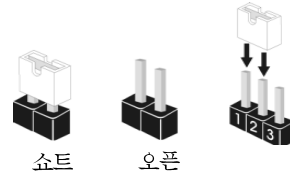
8. 자체 개발한 고급 하드웨어 및 소프트웨어 디자인을 특징을 하는 Intelligent Energy Saver (인텔리전트 에너지 세이버)는 혁신적인 기술로서 절전 효과가 타제품에 비해 월등합니다. CPU 코어가 유휴 상태일 때 전압 조정기가 출력 위상의 수를 줄여 효율을 높여줍니다. 즉, 탁월한 절전 효과와 함께 컴퓨터의 성능을 떨어뜨리지 않으면서 전원 효율을 높일 수 있습니다. Intelligent Energy Saver (인텔리전트 에너지 세이버) 기능을 사용하려면, 먼저 BIOS 셋업에서 클렌 파워 어트 옵션을 활성화하십시오. Intelligent Energy Saver (인텔리전트 에너지 세이버)의 사용법은 당사의 웹 사이트를 참조하십시오. ASRock 웹 사이트: <http://www.asrock.com>
9. ASRock Instant Flash는 플래시 ROM에 내장된 BIOS 유틸리티입니다. 이 편리한 BIOS 업데이트 툴을 사용하면 먼저 MS-DOS나 Windows® 같은 운영체제에 들어가지 않고도 시스템 BIOS를 업데이트할 수 있습니다. POST 중에 BIOS 셋업 메뉴에서 <F6> 키를 누르거나 <F2> 키를 누르면이 유틸리티로 ASRock Instant Flash에 액세스할 수 있습니다. 이제 이 툴을 시작하여 USB 플래시 드라이브, 플로피 디스크 또는 하드 드라이브에 새 BIOS 파일을 저장하면 플로피 디스켓이나 기타 복잡한 플래시 유틸리티를 추가로 준비하지 않고도 몇 번의 클릭만으로 BIOS를 업데이트할 수 있습니다. USB 플래시 드라이브 또는 하드 드라이브는 FAT32/16/12 파일 시스템을 사용해야 합니다.
10. 소프트웨어 이름 자체에서 볼 수 있듯이 OC DNA는 문자 그대로 자신의 기능을 잘 드러내고 있습니다. ASRock이 개발한 독보적인 유틸리티인 OC DNA에서 사용자가 매우 편리하게 OC 설정을 기록하고 이를 다른 사용자와 공유할 수 있습니다. 이 소프트웨어를 사용하면 운영 체제에 오버클로킹 기록을 저장하여 오버클로킹 설정의 복잡한 기록 과정을 단순화하는데 도움이 됩니다. 또한 OC DNA를 사용하여 OC 설정을 프로파일로 저장하고 이를 친구와 공유할 수 있습니다! 이 경우 친구는 OC 프로파일을 자신의 시스템에 로드하여 사용자와 동일한 OC 설정을 불러올 수 있습니다! 단, OC 프로파일은 동일한 메인보드에서만 공유 및 사용이 가능합니다.
11. Wii에서는 더 이상 직관적 모션 컨트롤 게임을 즐길 수 없습니다. ASRock AIWI 유틸리티는 새로운 PC 게임 조작방법을 소개합니다. ASRock AIWI는 아이폰/아이팟 터치로 PC 게임 컨트롤을 게임 조이스틱으로 사용할 수 있게 하는 세계 최초의 유틸리티입니다. ASRock 공식 웹사이트에서 또는 ASRock 소프트웨어 지원 CD에서 ASRock AIWI 유틸리티를 마더보드에 설치한 후 앱스토어에서 무료인 AIWILite를 아이폰/아이팟 터치에 다운로드할 수 있습니다. PC와 Apple 기기를 블루투스 또는 WiFi 네트워크를 통해서 연결하면 신나는 모션 컨트롤 게임을 즐길 수 있습니다. 또한 ASRock 공식 웹사이트를 정기적으로 방문하십시오. 지원되는 최신 게임을 계속 제공할 것입니다! ASRock 웹사이트: <http://www.asrock.com/Feature/Aiwi/index.asp>
12. 아이폰/아이팟 터치/아이패드와 같은 Apple 기기들을 더 빠르고 덜 제한된 방식으로 충전하려는 경우, ASRock이 제공하는 놀라운 솔루션인 ASRock APP Charger를 이용하십시오. APP Charger 드라이버를 설치하기만 하면 아이폰이 컴퓨터를 통해서 훨씬 더 빨리 충전되며 충전 속도도 최대 40% 더 빨라집니다. ASRock APP Charger는 많은 Apple 기기를 동시에 빨리 충전할 수 있게 하며, PC가 대기 모드(S1), RAM에 대한 일시 중

단(S3), 최대 절전 모드(S4) 또는 전원 꺼짐 모드(S5)에 들어갈 때도 연속적 충전을 지원합니다. APP Charger 드라이버를 설치하면 그 어느 때보다 더 간편하고 빠르게 충전할 수 있습니다. ASRock 웹사이트: <http://www.asrock.com/Feature/AppCharger/index.asp>

13. 본 마더보드는 직접 조절 기능을 제공하지만, 오버 클러킹을 하는 것은 권장되지 않습니다. 권장 CPU 버스 주파수가 아닌 주파수를 사용하면 시스템이 불안정해지거나 CPU가 손상될 수 있습니다.
14. 시스템을 다시 시작하기 전에 메인보드 위의 CPU 팬이 정상적으로 동작 또는 장착되어 있는지 확인하여 주십시오. 고온 방지를 위하여 PC 시스템을 설치할 때 CPU와 방열판 사이에 그리스를 발라 주셔야 합니다.
15. EuP는 Energy Using Product (에너지 사용 제품)의 약어이며 유럽 연합 이완제품 시스템의 전력 소비량을 정의하기 위해 제정한 표준이었습니다. EuP에 따르면, 완제품 시스템의 총 AC 전원은 끄기 모드 상태에서 1.00W 미만이어야 합니다. EuP 표준을 충족하려면 EuP 지원 마더보드 및 EuP 지원 전원공급장치가 필요합니다. 인텔(Intel)의 제안에 따르면 EuP 지원 전원공급장치는 5V 대기 전력 효율이 100mA 전류 소비 하에서 50%보다 높아야 한다는 기준을 충족해야 합니다. EuP 지원 전원공급장치를 선택하려면 전원공급장치 제조업체에 자세한 사항을 문의하시기 바랍니다.

### 1.3 점퍼 셋팅

그림은 점퍼를 어떻게 셋업 하는지를 보여줍니다.  
점퍼 캡이 핀 위에 있을 때, 점퍼는 “쇼트”입니다.  
점퍼 캡이 핀 위에 없을 때 점퍼는 “오픈”입니다.  
그림은 3개의 핀 중 1-2번 핀이 “쇼트”임을  
보여주는 것이며, 점퍼 캡이 이 두 핀 위에 있음을  
보여주는 것입니다.



#### 점퍼

#### 세팅

PS2\_USB\_PW1

(2 페이지, 1 번 항목 참조)



PS/2 또는 USB를 깨어나게  
하기 위해서는 2번과 3번 핀을  
“쇼트” 하여야 합니다.

참고: +5VSB 선택할 경우 2암페어 정도 높은 전류 공급을 요구합니다.

CMOS 초기화

(CLRCMOS1, 3 핀 점퍼)

(2 페이지, 9 번 항목 참조)



기본 설정



CMOS 삭제

참고: CLRCMOS1은 CMOS의 데이터를 삭제할 수 있게 합니다. CMOS의  
데이터는 시스템 암호, 날짜, 시간 및 시스템 설정 매개 변수와 같은 시스템 설정  
정보를 포함합니다. 시스템 매개 변수를 삭제하고 기본 설정으로  
초기화하려면 컴퓨터를 끄고 전원 코드를 뽑은 후 점퍼 캡을 사용하여  
CLRCMOS1의 2번과 3번 핀을 5초간 단락시키십시오. CMOS를 초기화 한 뒤,  
반드시 점퍼 캡을 제거하여야 합니다. 바이오스 업데이트를 마친 후 CMOS를 삭  
제해야 하는 경우 CMOS 삭제 동작 전에 시스템을 먼저 부팅했다가 종료해야 합니  
다.





## 1.4 온보드 헤더 및 커넥터





주의!

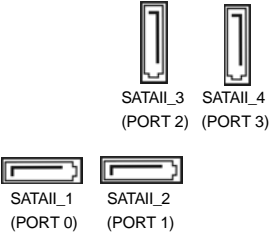
이 콘넥터는 점퍼가 아닙니다. 이 콘넥터 위에 점퍼 캡을 사용하지 마세요. 커넥터에 점퍼 캡을 설치하면 마더보드가 영구적으로 손상됩니다!

콘넥터	그림	설명
FDD 콘넥터 (33핀 FLOPPY1) (2페이지, 21번 항목 참조)		 빨간색 줄무늬 쪽을 1번 핀에

참고: 케이블의 빨간색 줄무늬가 있는 쪽을 커넥터의 1번 핀에 맞추어 연결하십시오.

IDE 콘넥터 1 (파란색) (39핀 IDE1, 2페이지, 10번 항목 참조)		
파란색은 메인보드에 연결합니다		검정색은 IDE 디바이스에 연결합니다
	80 도체 ATA 66/100/133 케이블	

참고: 자세한 사항은 IDE 장치 벤더가 제공하는 사용 설명서를 참조하십시오.

시리얼 ATAII 커넥터 (SATAII_1 (PORT 0): 2페이지, 17번 항목 참조) (SATAII_2 (PORT 1): 2페이지, 16번 항목 참조) (SATAII_3 (PORT 2): 2페이지, 13번 항목 참조) (SATAII_4 (PORT 3): 2페이지, 14번 항목 참조)		4개의 직렬 ATA (SATAII) 커넥터가 내부 저장 장치용 SATA 또는 SATAII HDD를 지원합니다. 커넥터가 내부기의 장치용 SATAII 케이블을 지원합니다. 현재의 SATAII 인터페이스는 최고 3.0 Gb/s의 데이터 전송 속도를 지원합니다.
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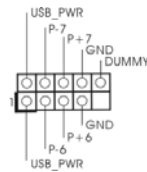
시리얼 ATA(SATA) 데이터 케이블 (선택 사양)		SATA 데이터 케이블의 임의적인 측을 마더보드의 SATA / SATAII 하드 디스크 혹은 SATAII 커넥터에 연결합니다.
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부속

### USB 2.0 헤더

(9핀 USB6\_7)

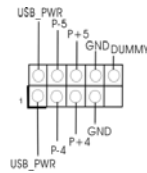
(2페이지, 19번 항목 참조)



본 머더보드에는 I/O 패널에 있는 4 개의 기본 USB 2.0 포트 외에도 USB 2.0 헤더가 2 개 있습니다. 각각의 USB 2.0 헤더는 2 개의 USB 2.0 포트를 지원할 수 있습니다.

(9핀 USB4\_5)

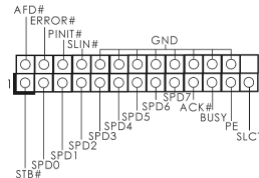
(2페이지, 18번 항목 참조)



### 프린트 포트 헤더

(25핀 LPT1)

(2페이지, 22번 항목 참조)

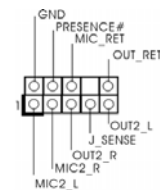


이것은 프린터 장치를 편리하게 연결할 수 있도록 해주는 프린트 포트 케이블용 인터페이스입니다.

### 전면부 오디오 콘넥터

(9핀 HD\_AUDIO1)

(2페이지, 23번 항목 참조)



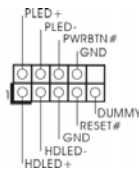
이 콘넥터는 오디오 장치를 편리하게 조절하고 연결할 수 있는 전면 오디오 인터페이스입니다.



1. High Definition Audio(고음질 오디오)는 잭 센스 기능을 지원하나, 제대로 작동하려면 새시의 패넬 와이어가 HAD를 지원해야 합니다. 이 설명서 및 새시 설명서의 지침을 따라 시스템을 설치하십시오.
2. AC' 97 오디오 패넬을 사용하는 경우, 이를 아래와 같이 프론트패넬의 오디오헤더에 설치하십시오.
  - A. Mic\_IN (MIC)을 MIC2\_L에 연결합니다.
  - B. Audio\_R (RIN)을 OUT2\_R에 연결하고, Audio\_L (LIN)을 OUT2\_L에 연결합니다.
  - C. Ground (GND)을 Ground (GND)에 연결합니다.
  - D. MIC\_RET 및 OUT\_RET는 HD 오디오 패넬 전용입니다. 이들을 AC' 97 오디오 패넬에 연결 하지 않아도 됩니다.
  - E. 앞면 마이크 작동.  
Windows® XP / XP 64비트 OS의 경우:  
"Mixer" (믹서)와 "Recorder" (리코더)를 선택한 후 "FrontMic" (앞면 마이크)를 선택합니다.

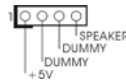
Windows®7/764비트/Vista™/Vista™64비트 OS의 경우:  
Realtek 제어판에서"FrontMic" (앞면 마이크)로 가서 "Recording  
Volume" (리코딩 볼륨)을 조정합니다.

시스템 콘넥터  
(9핀 PANEL1)  
(2페이지, 15번 항목 참조)



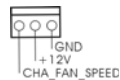
이 콘넥터는 시스템 전면 패널  
기능을 지원하기 위한  
것입니다.

새시 스피커 헤더  
(4핀 SPEAKER1)  
(2페이지, 8번 항목 참조)



새시 스피커를 이 헤더에  
연결하십시오.

새시 및 전원 팬 커넥터  
(3핀 CHA\_FAN1)  
(2페이지, 20번 항목 참조)

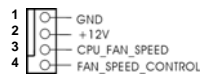


팬 케이블을 팬 커넥터에 연결  
하고 접지 핀에는 검은색 전선  
을 연결하십시오.

(3핀 PWR\_FAN1)  
(2페이지, 28번 항목 참조)



CPU 팬 커넥터  
(4핀 CPU\_FAN1)  
(2페이지, 6번 항목 참조)



CPU 팬 케이블을 이 커넥터에  
연결하고 흑색 선을 접지 핀에  
맞추십시오.



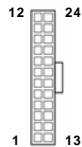
본 머더보드가 4핀 CPU 팬(저소음 팬) 지원을 제공하지는 않지만 팬 속도 제어  
기능없이도 3핀 CPU 팬을 성공적으로 작동할 수 있습니다. 본 머더보드의  
CPU 팬 커넥터에 3핀 CPU 팬을 연결하려면 1-3 번 핀에 연결하십시오.

1-3 번 핀에 연결됨 ←

3핀 팬 설치



ATX 전원 헤더  
(24핀 ATXPWR1)  
(2페이지, 7번 항목 참조)



ATX 전원 공급기를 이 헤더에  
연결하십시오.

고  
속  
회



이 마더보드는 24핀 ATX 전원 커넥터를 제공하지만, 종래의 20핀 ATX 전원 공급장치를 사용해도 작동이 가능합니다. 20핀 ATX 전원 공급장치를 사용하려면, Pin 1과 Pin 13으로 전원 공급장치를 연결하십시오.



20핀 ATX 전원 공급장치 설치

#### ATX 12V 파워 콘넥터

(4핀 ATX12V1)

(2 페이지, 2 번 항목 참조)



ATX 12V 플러그가 달린 전원공급장치를 이 커넥터에 연결해야 충분한 전력을 공급할 수 있습니다. 그렇지 않을 경우 전원을 켤 수 없습니다.

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## 2. 시스템 바이오스 정보

메인보드의 플래쉬 메모리에는 바이오스 셋업 유틸리티가 저장되어 있습니다. 컴퓨터를 사용하실 때, “자가진단 테스트”(POST)가 실시되는 동안 <F2>키를 눌러 바이오스 셋업으로 들어가세요; 만일 그렇게 하지 않으면 POST는 테스트 루틴을 계속하여 실행할 것입니다. 만일 POST 이후 바이오스 셋업을 하기 원하신다면, <Ctrl>+<Alt>+<Delete>키를 누르거나, 또는 시스템 본체의 리셋 버튼을 눌러 시스템을 재 시작하여 주시기 바랍니다. 바이오스 셋업 프로그램은 사용하기 편하도록 디자인되어 있습니다. 각 항목은 다양한 서브 메뉴 표가 올라오며 미리 정해진 값 중에서 선택할 수 있도록 되어 있습니다. 바이오스 셋업에 대한 보다 상세한 정보를 원하신다면 보조 CD안의 포함된 사용자 매뉴얼(PDF 파일)을 따라 주시기 바랍니다.

## 3. 소프트웨어 지원 CD 정보

이 메인보드는 여러 가지 마이크로소프트 윈도우 운영 체계를 지원합니다 : 7/7 64 비트/Vista™/Vista™ 64 비트/XP/XP 미디어 센터/XP 64 비트. 메인보드에 필요한 드라이버와 사용자 편의를 위해 제공되는 보조 CD는 메인보드의 기능을 향상시켜 줄 것입니다. 보조 CD를 사용하여 시작하시려면, CD-ROM 드라이브에 CD를 넣어주시기 바랍니다. 만일 고객님의 컴퓨터가 “AUTORUN”이 가능하다면 자동으로 메인 메뉴를 모니터에 디스플레이 시켜 줄 것입니다. 만일 자동으로 메인 메뉴가 나타나지 않는다면, 보조 CD의 디스플레이 메뉴 안에 있는 BIN 폴더 ASSETUP.EXE 파일을 더블 클릭하여 주시기 바랍니다.  
(D: \BIN\ASSETUP.EXE, D:는 CD-ROM 드라이브)

## 1. 主板简介

谢谢你采用了华擎 785GM-GS3 / 785GM-S3 主板, 本主板由华擎严格制造, 质量可靠, 稳定性好, 能够获得卓越的性能。此快速安装指南包括主板介绍和分步安装向导。您可以查看支持光盘里的用户手册了解更详细的资料。



由于主板规格和 BIOS 软件将不断升级, 本手册之相关内容变更恕不另行通知。请留意华擎网站上公布的升级版本。你也可以在华擎网站找到最新的显卡和 CPU 支持表。

华擎网址: <http://www.asrock.com>

如果您需要与此主板有关的技术支持, 请参观我们的网站以了解您使用机种的规格信息。

[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 包装盒内物品

华擎 785GM-GS3 / 785GM-S3 主板

(Micro ATX 规格: 9.6 英寸 X 7.2 英寸, 24.4 厘米 X 18.3 厘米)

华擎 785GM-GS3 / 785GM-S3 快速安装指南

华擎 785GM-GS3 / 785GM-S3 支持光盘

两条 Serial ATA (SATA) 数据线 (选配)

一块 I/O 挡板

## 1.2 主板规格

架构	<ul style="list-style-type: none"> <li>- Micro ATX 规格： 9.6 英寸 X 7.2 英寸，24.4 厘米 X 18.3 厘米</li> </ul>
处理器	<ul style="list-style-type: none"> <li>- 支持 Socket AM3 处理器：AMD Phenom™ II X6 / X4 / X3 / X2(920/940 除外) / Athlon II X4 / X3 / X2 / Sempron 处理器</li> <li>- 六核心 CPU 就绪</li> <li>- 通过 ACC（高级时钟校准）功能支持 AMD OverDrive™ 系统调节</li> <li>- AMD LIVE!™ Ready</li> <li>- 支持 AMD Cool 'n' Quiet™ 冷静技术</li> <li>- 支持 FSB 2600 MHz (5.2 GT/s)</li> <li>- 支持异步超频技术（详见警告 1）</li> <li>- 支持 Hyper-Transport 3.0 (HT 3.0) 技术</li> </ul>
芯片组	<ul style="list-style-type: none"> <li>- 北桥：AMD 785G</li> <li>- 南桥：AMD SB710</li> </ul>
系统内存	<ul style="list-style-type: none"> <li>- 支持双通道内存技术（见警告 2）</li> <li>- 配备 2 个 DDR3 DIMM 插槽</li> <li>- 支持 DDR3 1800(超频)/1600(超频)/1333/1066/800 non-ECC、un-buffered 内存（见警告 3）</li> <li>- 系统最高支持 8GB 容量（见警告 4）</li> </ul>
扩展插槽	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 插槽(蓝色 @ x16 模式)</li> <li>- 1 x PCI Express 2.0 x1 插槽</li> <li>- 2 x PCI 插槽</li> <li>- 支持 ATI™ Hybrid CrossFireX™</li> </ul>
板载显卡	<ul style="list-style-type: none"> <li>- 集成 AMD Radeon HD 4200 显卡</li> <li>- DX10.1 级别 iGPU, Pixel Shader 4.1 技术</li> <li>- 最大共享内存 512MB（见警告 5）</li> <li>- 支持 D-Sub, 最高分辨率达 2048x1536 @ 60Hz</li> </ul>
音效	<ul style="list-style-type: none"> <li>- 5.1 声道高保真音频（Realtek ALC662 音频编解码器）</li> </ul>
板载 LAN 功能	<ul style="list-style-type: none"> <li>- 785GM-GS3 Realtek PCIE x1 Gigabit LAN RTL8111E, 10/100/1000 Mb/s</li> <li>- 785GM-S3 Realtek PCIe x1 LAN 8105EL, 高速 10/100 局域网</li> <li>- 支持网路唤醒（Wake-On-LAN）</li> </ul>
Rear Panel I/O (后面板输入/输出接口)	I/O 界面 <ul style="list-style-type: none"> <li>- 1 个 PS/2 鼠标接口</li> <li>- 1 个 PS/2 键盘接口</li> <li>- 1 个串行接口</li> <li>- 1 个 VGA 接口</li> </ul>

	<ul style="list-style-type: none"> <li>- 4 个可直接使用的 USB 2.0 接口</li> <li>- 1 个 RJ-45 局域网接口与 LED 指示灯 (ACT/LINK LED 和 SPEED LED)</li> <li>- 高保真音频插孔：音频输出 / 输入 / 麦克风</li> </ul>
连接头	<ul style="list-style-type: none"> <li>- 4 x SATAII 3.0Gb/s 连接头，支持 RAID (RAID 0, RAID 1, RAID 10 和 JBOD), NCQ, AHCI 和 “热插拔” 功能 (详见警告 6)</li> <li>- 1 x ATA133 IDE 插座 (最高支持 2 个 IDE 驱动器)</li> <li>- 1 x 软驱接口</li> <li>- 1 x 打印机端口接针</li> <li>- CPU / 机箱 / 电源风扇接头</li> <li>- 24 针 ATX 电源接头</li> <li>- 4 针 12V 电源接头</li> <li>- 前置音频面板接头</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- 采用 AMI BIOS</li> <li>- 支持即插即用 (Plug and Play, PnP)</li> <li>- ACPI 1.1 电源管理</li> <li>- 支持唤醒功能</li> <li>- 支持 jumperfree 免跳线模式</li> <li>- 支持 SMBIOS 2.3.1</li> <li>- CPU、VCCM、NB (北桥芯片) 电压多功能调节器</li> </ul>
支持光盘	<ul style="list-style-type: none"> <li>- 驱动程序，工具软件，杀毒软件 (测试版本)，AMD OverDrive™ 工具，华擎软件套装 (CyberLink DVD 套件与 Creative Sound Blaster X-Fi MB) (OEM 与试用版)</li> </ul>
独家功能	<ul style="list-style-type: none"> <li>- 华擎超频调节器 (详见警告 7)</li> <li>- 智能节能器 (Intelligent Energy Saver) (见警告 8)</li> <li>- 即时开机功能</li> <li>- 华擎 Instant Flash (见警告 9)</li> <li>- 华擎 OC DNA (见警告 10)</li> <li>- 华擎 AIWI (见警告 11)</li> <li>- 华擎 APP Charger (见警告 12)</li> <li>- Hybrid Booster (安心超频技术)： <ul style="list-style-type: none"> <li>- 支持 CPU 无级频率调控 (见警告 13)</li> <li>- ASRock U-COP (见警告 14)</li> <li>- Boot Failure Guard (B.F.G., 启动失败恢复技术)</li> </ul> </li> </ul>
硬件监控器	<ul style="list-style-type: none"> <li>- CPU 温度侦测</li> <li>- 主板温度侦测</li> <li>- CPU / 机箱 / 电源风扇转速计</li> <li>- CPU 静音风扇</li> <li>- 电压范围：+12V, +5V, +3.3V, 核心电压</li> </ul>
操作系统	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 7/7 64 位元 / Vista™ / Vista™ 64 位元 / XP / XP 多媒体中心 / XP 64 位元适用于此主板</li> </ul>



认证	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- 支持 ErP/EuP (需要同时使用支持 ErP/EuP 的电源供应器) (见警告 15)</li> </ul>
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\* 请参阅华擎网站了解详细的产品信息: <http://www.asrock.com>

**警告**  
 请了解超频具有不可避免的风险,这些超频包括调节 BIOS 设置、运用异步超频技术或使用第三方超频工具。超频可能会影响您的系统稳定性,甚至会导致系统组件和设备的损坏。这种风险和代价须由您自己承担,我们对超频可能导致的损坏不承担责任。

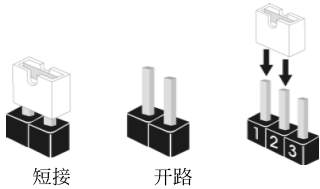
### 警告!

1. 这款主板支持异步超频技术。请阅读第 24 页的“Untied Overclocking Technology”(自由超频技术)了解详情。
2. 这款主板支持双通道内存技术。在您实现双通道内存技术之前,为能正确安装,请确认您已经阅读了第 13 页的内存模组安装指南。
3. 1800/1600MHz 内存频率是否支持在于您使用的 AM3 CPU。如果您想在这款主板上使用 DDR3 1800/1600 内存条,请查阅我们网站的内存支持列表了解兼容的内存。华擎网站 <http://www.asrock.com>
4. 由于操作系统的限制,在 Windows® 7 / Vista™ / XP 下,供系统使用的实际内存容量可能小于 4GB。对于 Windows® 操作系统搭配 64 位元 CPU 来说,不会存在这样的限制。
5. 最大共享内存大小由芯片组厂商定义并且可以更改。请查阅 AMD 网站了解最新资讯。
6. 在将 SATAII 硬盘连接到 SATAII 接口之前,请阅读 CD 光盘中的“User Manual”(用户手册,英文版)第 27 页的“SATAII Hard Disk Setup Guide”(SATAII 硬盘安装指南)调整您的 SATAII 硬盘驱动器为 SATAII 模式。您也可以直接将 SATA 硬盘连接到 SATAII 接口。
7. 这是一款具有友好使用界面的华擎超频工具,让您通过硬件监控功能监控您的系统,帮助您在 Windows® 环境下对硬件运行超频以获得最佳的系统性能。请访问我们的网站了解华擎超频调节器的使用方法。  
 华擎网站: <http://www.asrock.com>
8. 智能节能器(Intelligent Energy Saver)采用先进的软硬件专利设计,这项革新技术带来极佳的节能效果。当 CPU 核心闲置时,电压调节器可以减小输出电压的相数,有助于提升能源效率。换句话说,它可以在不牺牲性能的前提下,让系统更省电,并提高能源效率。为了使用智能节能器(Intelligent Energy Saver)的功能,请在 BIOS 的高级设置里启用 Cool'n'Quiet 选项。请访问我们的网站了解智能节能器(Intelligent Energy Saver)的使用方法。华擎网站: <http://www.asrock.com>
9. 华擎 Instant Flash 是一个内建于 Flash ROM 的 BIOS 更新工具程序。这个方便的 BIOS 更新工具可让您无需进入操作系统(如 MS-DOS 或 Windows®)即可进行 BIOS 的更新。在系统开机自检过程中按下<F6>键或在 BIOS 设置菜单中按下<F2>键即可进入华擎 Instant Flash 工具程序。启动这一程序后,只需把新的 BIOS 文件保存在 U 盘、软盘或硬盘中,轻松点击鼠标就能完成 BIOS 的更新,而不再需要准备额外的软盘或其他复杂的更新程序。请注意:U 盘或硬盘必须使用 FAT32/64 文件系统。

10. 软件的名字本身-OC DNA 已经向您透露了它的用途。OC DNA 是华擎独家研发的创新工具程序,它为用户提供一种记录超频设置并与他人分享的简单方法。这个好用的工具程序可帮助您在操作系统中保存超频记录,大大简化了超频设置的记录过程。有了 OC DNA,您可以将超频设置保存为一个设置文件并与朋友分享!请注意:超频设置文件只能在相同的主板上分享和使用。
11. 体验直观的运动控制游戏不再只是 Wii 的特权。华擎 AIWI 实用程序引入了一种全新的 PC 游戏操作方法。华擎 AIWI 是世界上首个将您的 iPhone/iPod touch 当作游戏手柄来控制 PC 游戏的工具。您所要做的是从华擎官网或华擎主板的软件支持光盘中下载 AIWI 实用程序,将其安装到您的电脑,并从 App 商店下载免费的 AIWI Lite 到您的 iPhone/iPod touch。然后将您的 PC 和 Apple 设备通过蓝牙或无线网络连接起来,您就可以开始体验另人兴奋的运动控制游戏了。同时,不要忘记定期关注华擎官方网站,我们将持续提供最新支持的游戏!  
华擎网站: <http://www.asrock.com/Feature/Aiwi/index.asp>
12. 若您想要更快速、更自由地为您的苹果设备,如 iPhone/iPad/iPod touch 充电,华擎为您提供了一个绝妙的解决方案-华擎 APP Charger。只需安装 APP Charger 驱动程序,用电脑为 iPhone 充电最多可以比以往快 40%。华擎 APP Charger 允许您同时为多部苹果设备快速充电,甚至可以在电脑进入待机(S1)、挂起至内存(S3)、休眠(S4)或关机(S5)模式下持续为设备充电。只需安装了 APP Charger 驱动程序,您立刻就能拥有非凡的充电体验。
13. 尽管本主板提供无级频率调控,但不推荐用户超频使用。不同于标准 CPU 总线频率的非标准频率可能会使系统不稳定,甚至会损害 CPU 和主板。主板的处理器主频由跳线装置决定。
14. 当检测到 CPU 过热问题时,系统会自动关机。在您重新启动系统之前,请检查主板上的 CPU 风扇是否正常运转并拔出电源线,然后再将它插回。为了提高散热性,在安装 PC 系统时请在 CPU 和散热器之间涂一层导热胶。
15. EuP,全称 Energy Using Product(能耗产品),是欧盟用来定义完整系统耗电量的规定。根据 EuP 的规定,一个完整系统在关机模式下的交流电总消耗必须在 1.00W 以下。为满足 EuP 标准,您需要同时具备支持 EuP 的主板和支持 EuP 的电源供应器。根据 Intel® 的建议,支持 EuP 的电源供应器必须满足在 100mA 电流消耗时,5Vsb 电源效率高于 50%。有关支持 EuP 的电源供应器选择方面的更多细节,我们建议您咨询电源供应器的制作商。

1.3 跳线设置

插图所示的就是设置跳线的方法。当跳线帽放置在针脚上时，这个跳线就是“短接”。如果针脚上没有放置跳线帽，这个跳线就是“开路”。插图显示了一个 3 针脚的跳线，当跳线帽放置在针脚 1 和针脚 2 之间时就是“短接”。



接脚	设定
PS2_USB_PW1 (见第 2 页第 1 项)	<div><div>1 2 +5V</div><div>2 3 +5VSB</div></div> <div>短接 pin2 和 pin3，就可以设置 +5VSB(待机)，使 PS/2 或 USB 能唤醒系统。</div>
注意：选择 +5VSB，电源必须能提供 +2 AMP 或更高的待机电流。	

清除 CMOS (CLRCMOS1, 3 针脚跳线) (见第 2 页第 9 项)	<div><div>1 2 默认设置</div><div>2 3 清除 CMOS</div></div> <div>注意：CLRCMOS1 允许您清除 CMOS 里的资料。在 CMOS 里的资料包括系统设置资讯，例如系统密码，日期，时间及系统设置参数。为了清除并重置系统参数到默认设置，请关闭电脑并拔掉电源线，然后用跳线帽短接 CLRCMOS1 上的 pin2 和 pin3 五秒钟。如果您需要再完成 BIOS 刷新时清除 CMOS，您必须首先启动系统，然后在您进行 CMOS 清除操作之前关闭系统。</div>
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1.4 板载接头和接口



板载接头和接口不是跳线。切勿将跳线帽放置在这些接头和接口上。将跳线帽放置在接头和接口上将会导致主板的永久性损坏！

软驱接头 (33 针 FLOPPY1) (见第 2 页第 21 项)	<div><div>PIN1 FLOPPY1</div><div>将标示红色斑纹的一边插入第 1 针脚(Pin1)</div></div> <div>注意：请确保数据线标红色斑纹的一边插入连接器第 1 针脚(Pin1)的位置。</div>
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主 IDE 接头(蓝色) (39 针 IDE1, 见第 2 页第 10 项)	<div><div>PIN1 IDE1</div><div>蓝色端接到主板上 80 针的 ATA 66/100/133 排线 黑色端接到硬盘驱动器上</div><div>注意：请查阅您的 IDE 驱动器供应商提供的说明书了解详细资料。</div></div>
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## Serial ATAII 接口

(SATAII\_1(PORT 0):

见第2页第17项)

(SATAII\_2(PORT 1):

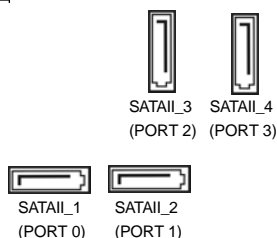
见第2页第16项)

(SATAII\_3(PORT 2):

见第2页第13项)

(SATAII\_4(PORT 3):

见第2页第14项)



这里有四组 Serial ATAII (SATAII) 接口支持 SATA 或 SATAII 硬盘作为内部储存设置。目前 SATAII 界面理论上可提供高达 3.0Gb/s 的数据传输速率。

## Serial ATA (SATA)

数据线

(选配)

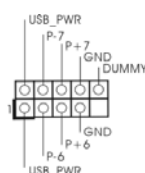


SATA 数据线的任意一端均可连接 SATA/SATAII 硬盘或者主板上的 SATAII 接口。

## USB 2.0 扩展接头

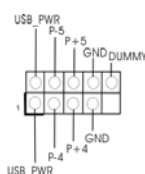
(9 针 USB6\_7)

(见第2页第19项)



(9 针 USB4\_5)

(见第2页第18项)

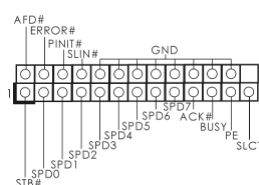


除了位于 I/O 面板的四个默认 USB 2.0 接口之外，这款主板有两组 USB 2.0 接针。这组 USB 2.0 接针可以支持两个 USB 2.0 接口。

## 打印机端口接针

(25 针 LPT1)

(见第2页第22项)

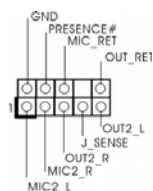


这是一个连接打印机端口的接口，方便您连接打印机设备。

## 前置音频面板接头

(9 针 HD\_AUDIO1)

(见第2页第23项)

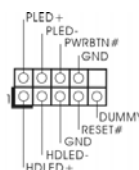


可以方便连接音频设备。



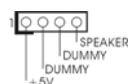
1. 高保真音频(High Definition Audio, HDA)支持智能音频接口检测功能(Jack Sensing),但是机箱面板的连线必须支持 HDA 才能正常使用。请按我们提供的手册和机箱手册上的使用说明安装您的系统。
2. 如果您使用 AC' 97 音频面板,请按照下面的步骤将它安装到前面板音频接口:
  - A. 将 Mic\_IN(MIC)连接到 MIC2\_L。
  - B. 将 Audio\_R(RIN)连接到 OUT2\_R,将 Audio\_L(LIN)连接到 OUT2\_L。
  - C. 将 Ground(GND)连接到 Ground(GND)。
  - D. MIC\_RET 和 OUT\_RET 仅用于 HD 音频面板。您不必将它们连接到 AC' 97 音频面板。
  - E. 开启前置麦克风。  
在 Windows® XP / XP 64 位元操作系统中:  
选择" Mixer"。选择" Recorder"。接著点击" FrontMic"。  
在 Windows® 7 / 7 64 位元 / Vista™ / Vista™ 64 位元操作系统中:  
在 Realtek 控制面板中点击" FrontMic"。调节" Recording Volume"。

系统面板接头  
(9 针 PANEL1)  
(见第 2 页第 15 项)



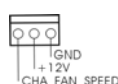
这个接头提供数个系统前面板功能。

机箱喇叭接头  
(4 针 SPEAKER1)  
(见第 2 页第 8 项)



请将机箱喇叭连接到这个接头。

机箱, 电源风扇接头  
(3 针 CHA\_FAN1)  
(见第 2 页第 20 项)



请将风扇连接线接到这个接头, 并让黑线与接地的针脚相接。

(3 针 PWR\_FAN1)  
(见第 2 页第 28 项)



CPU 风扇接头  
(4 针 CPU\_FAN1)  
(见第 2 页第 6 项)



请将 CPU 风扇连接线接到这个接头, 并让黑线与接地的针脚相接。

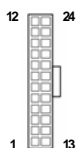


虽然此主板支持 4-Pin CPU 风扇(Quiet Fan, 静音风扇),但是没有调速功能的 3-Pin CPU 风扇仍然可以在此主板上正常运行。如果您打算将 3-Pin CPU 风扇连接到此主板的 CPU 风扇接口,请将它连接到 Pin 1-3。

Pin 1-3 连接  
3-Pin 风扇的安装



ATX 电源接头  
(24 针 ATXPWR1)  
(见第 2 页 7 项)



请将 ATX 电源供应器连接到这个接头。



虽然此主板提供 24-pin ATX 电源接口,但是您仍然可以使用传统的 20-pin ATX 电源。为了使用 20-pin ATX 电源,请顺著 Pin 1 和 Pin 13 插上电源接头。

20-Pin ATX 电源安装说明



ATX 12V 电源接口  
(4 针 ATX12V1)  
(见第 2 页第 2 项)



请注意,必需将带有 ATX 12V 插头的电源供应器连接到这个插座,这样就可以提供充足的电力。如果不这样做,就会导致供电故障。

## 2. BIOS 信息

主板上的 Flash Memory 芯片存储了 BIOS 设置程序。启动计算机，在机器开机自检 (POST) 的过程中按下 <F2> 键，就可进入 BIOS 设置程序，否则将继续进行开机自检之常规检验。如果须要在开机自检后进入 BIOS 设置程序，请按下 <Ctl> + <Alt> + <Delete> 键重新启动计算机，或者按下系统面板上的重启按钮。功能设置程序储存有主板自身的和连接在其上的设备的缺省和设定的参数。这些信息用于在启动系统和系统运行需要时，测试和初始化元器件。有关 BIOS 设置的详细信息，请查阅随机支持光盘里的用户手册 (PDF 文件)。

## 3. 支持光盘信息

本主板支持各种微软视窗操作系统：Microsoft® Windows® 7/7 64 位元 / Vista™/Vista™ 64 位元 / XP/XP 多媒体中心 / XP 64 位元。主板附带的支持光盘包含各种有助于提高主板效能的必要驱动和实用程序。请将随机支持光盘放入光驱里，如果计算机的“自动运行”功能已启用，屏幕将会自动显示主菜单。如果主菜单不能自动显示，请查找支持光盘内 BIN 文件夹下的 ASSETUP.EXE 文件并双击它，即可调出主菜单。

## 电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。



图一

## 有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及其电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注：此产品所标示之环保使用年限，系指在一般正常使用状况下。